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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/804,266	03/18/2004	Tetsujiro Kondo	450100-02178.1	7452
20999	7590	11/28/2005	EXAMINER KUMAR, PANKAJ	
FROMMER LAWRENCE & HAUG 745 FIFTH AVENUE- 10TH FL. NEW YORK, NY 10151			ART UNIT 2631	PAPER NUMBER

DATE MAILED: 11/28/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/804,266

Applicant(s)

KONDO ET AL.

Examiner

Pankaj Kumar

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 18 March 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 18,19,21-34 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 18,19,26,27 and 34 is/are rejected.
- 7) ☐ Claim(s) 21-25 and 28-33 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Arguments

1. Applicant's arguments filed have been fully considered but they are not persuasive.
2. Applicant argues that Nobakht does not teach a single component for calculating weights using the reliability of both the input data and the output data. This is not persuasive since applicant has not claimed that a single component uses both reliabilities. Instead what applicant has claimed is a real-time learning portion using both reliabilities. Nobakht has two components that teach the real-time learning portion using both reliabilities and thus meets the limitations of the claim. Also, in an earlier part of the same claim 18, applicant has reliabilities with two separate components because applicant claims an apparatus comprising one component which is an input data evaluator which calculates reliability of input data and another component which is an output data evaluator which calculates reliability of output data.

Response to Amendment

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

4. Claims 18-19, 26, 27, 34 are rejected under 35 U.S.C. 102(e) as being anticipated by Nobakht USPN 5,692,011.

5. As per claim 18, Nobakht teaches data processor (Nobakht fig. 5: top feed forward filter) configured (Nobakht fig. 5: coefficient adjustment for top feed forward filter) to process the input data (Nobakht fig. 5: left input into the top feed forward filter) by a predetermined processing method (Nobakht fig. 5: taps of top feedforward filter) and output the processed data as output data (Nobakht fig. 5: right output of top feed forward filter); input-data evaluator (Nobakht fig. 5: bottom feed forward filter with its output going to the bottom summer) configured (Nobakht fig. 5: coefficient adjustment for bottom feed forward filter) to evaluate the input data (Nobakht fig. 5: left input into the bottom feed forward filter) and calculate a reliability of the input data (Nobakht fig. 5: $e_2(k)$ error is the reliability); output-data evaluator (Nobakht fig. 5: top decision element) configured (Nobakht col. 2 lines 32-35: "When the optimum configuration has been reached the outputs of the receiver decision element, i.e. the self-decided symbols, are correct with very high probability and can be used") to evaluate the output data (Nobakht fig. 5: output from top feedforward filter via summer) and calculate a reliability of the output data (Nobakht fig. 5: $e_1(k)$), and real-time learning portion (Nobakht fig. 5: feedback filter with its coefficient adjustment) configured (Nobakht col. 2 lines 32-35: "When the optimum configuration has been reached the outputs of the receiver decision element, i.e. the self-decided symbols, are correct with very high probability and can be used") to learn the processing method in real time using the reliability of the input data (Nobakht fig. 5: $e_2(k)$ error is the reliability) calculated by said input-data evaluator (Nobakht fig. 5: bottom feed forward filter with its output going to the bottom summer) and the reliability of the output data (Nobakht fig. 5: $e_1(k)$) calculated by said output-data evaluator (Nobakht fig. 5: top decision element) and control the data processor (Nobakht fig. 5: top feed forward filter) to process the input data

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(Nobakht fig. 5: left input into the top feed forward filter) according to the learned processing method (Nobakht fig. 5: coefficients are learned or adjusted in real time).

6. As per claim 19, Nobakht teaches a data processing apparatus according to Claim 18, further comprising an input-data storage unit for storing a predetermined number of time-sequentially input data (Nobakht fig. 1a: inputs are sequentially moved through the delays T and processed).

7. Claims 26 and 27 are discussed above with respect to claims 18 and 19.

8. As per claim 34, it is discussed above with respect to claim 18. As per programming, Nobakht discusses programming in col. 1 line 56 with programmable DSPs.

Allowable Subject Matter

9. Claims 21-25 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims and also rewritten to resolve the objection discussed in the claim objections section.

10. Claims 28-33 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

11. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

12. A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

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13. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Pankaj Kumar whose telephone number is (571) 272-3011. The examiner can normally be reached on Mon, Tues, Thurs and Fri after 8AM to after 6:30PM.

14. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mohammad H. Ghayour can be reached on (571) 272-3021. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

15. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Pankaj Kumar
Patent Examiner
Art Unit 2631

PK


MOHAMMED GHAYOUR
SUPERVISORY PATENT EXAMINER